2097

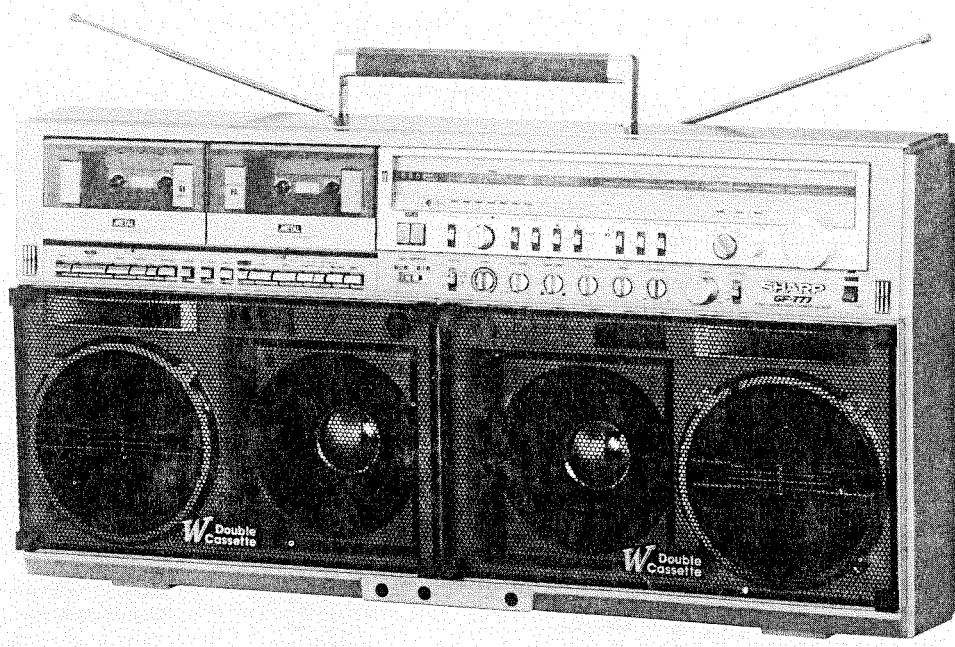
DOUBLE CASSETTE STEREO TAPE RECORDER
STEREO-DOPPEL-CASSETTENREKORDER
MAGNETOPHONE A DOUBLE CASSETTE STEREO
DUBBLA KASSETTBANDSPELARE
REGISTRATORE A DOPPIA CASSETTA

ENGLISH
DEUTSCH
FRANÇAIS
SVENSKA
ITALIANO

OPERATION MANUAL
BEDIENUNGSANLEITUNG
MODE D'EMPLOI
BRUKSANVISNING
MANUALE DI ISTRUZIONI

GF-777H

The Searcher



MULTI-AMP SYSTEM

SHARP

2097

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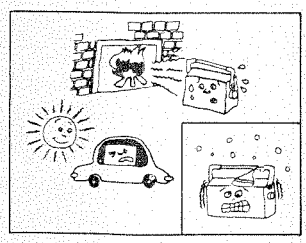
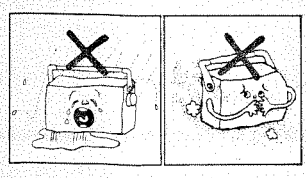
ENGLISH

CAUTIONS

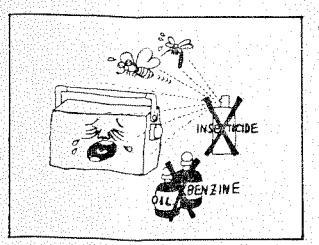


1. Do not expose the unit to heat, 60°C (140°F), or above. For example do not place the unit near heaters, radiators, in direct sunlight, or even leave inside a motor vehicle on a sunny day – temperature can reach 80°C (176°F), or above. Heat will damage the cabinet. Also avoid leaving the unit in extremely cold places, 5°C (41°F), or below.

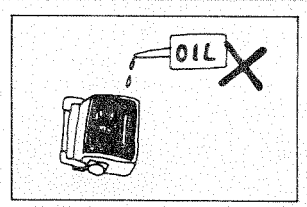


2. Do not expose the unit to moisture – rain, vapour, etc. – because the circuitry may be damaged.

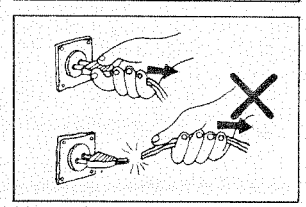
3. Do not store the unit or Cassette Tapes in humid or dusty environments for any length of time.



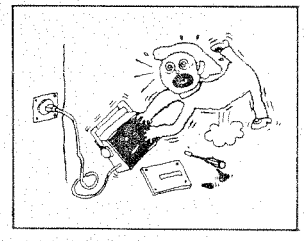
4. Do not apply any organic solvents – petroleum, benzine, thinners, etc., or even insecticides – to the surfaces of the unit. Such materials can cause cracking or deterioration of the cabinet surface.



5. Do not oil any part of the unit.

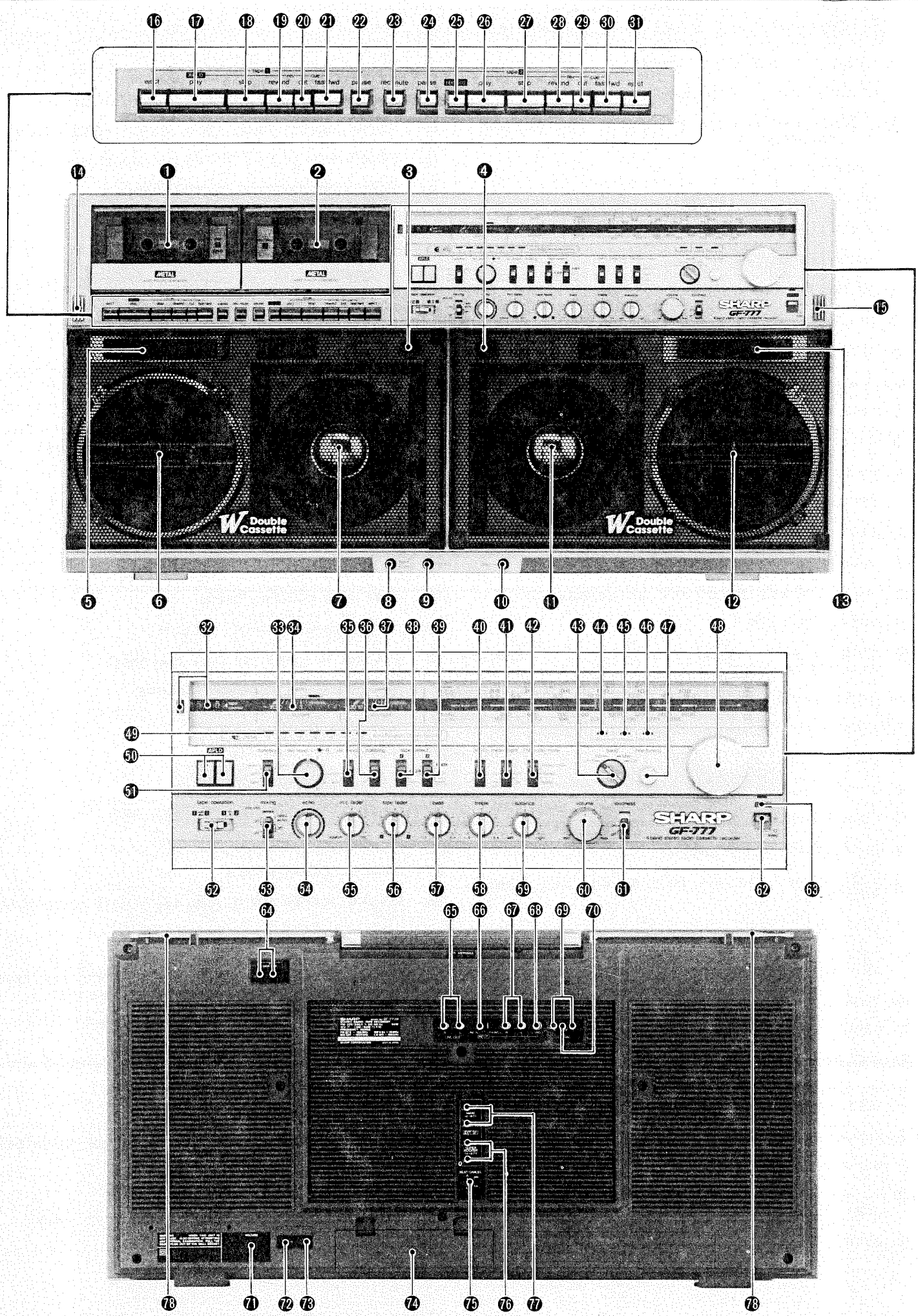


6. Do not hold cords of plugs – AC supply plug and jack – when disconnecting. This will break the connections. Hold the plug body when disconnecting from the outlet.



7. Always disconnect AC Supply Cord Plug before servicing. Never remove cover unless qualified to repair this unit, because there is a danger from the high-voltage residual electric charge.

This apparatus complies with requirements of EEC directive 76/889/EEC.


SHARP
GF-777
Double Cassette
METAL

EXPLANATION OF CONTROLS (Refer to photo on page 2)

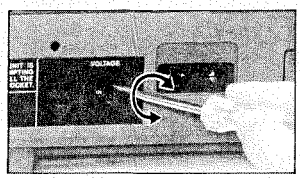
1. DECK 1: CASSETTE COMPARTMENT
2. DECK 2: CASSETTE COMPARTMENT
3. and 4. SUPER WOOFER SOUND CONTROL (LEFT and RIGHT CHANNELS)
5. TWEETER (LEFT)
6. WOOFER (LEFT)
7. SUPER WOOFER (LEFT)
8. DECK 1: MONITORING SOCKET (TAPE 1 MONITOR)
9. MIXING MICROPHONE SOCKET (MIX MIC)
10. HEADPHONES SOCKET (PHONES)
11. SUPER WOOFER (RIGHT)
12. WOOFER (RIGHT)
13. TWEETER (RIGHT)
14. BUILT-IN MICROPHONE FOR LEFT CHANNEL RECORDING
15. BUILT-IN MICROPHONE FOR RIGHT CHANNEL RECORDING
16. DECK 1: CASSETTE EJECTION KEY (EJECT)
17. DECK 1: PLAYBACK KEY (PLAY)
18. DECK 1: STOP KEY (STOP)
19. DECK 1: REWIND/REVIEW KEY (REWIND/REVIEW)
20. DECK 1: CUT KEY
21. DECK 1: FAST FORWARD WIND/CUE (SKIP FORWARD) KEY (FAST FWD/CUE)
22. DECK 1: PAUSE KEY (PAUSE)
23. DECK 2: RECORD MUTING SWITCH (REC MUTE)
24. DECK 2: PAUSE KEY (PAUSE)
25. DECK 2: RECORD KEY (RECORD)
26. DECK 2: PLAYBACK KEY (PLAY)
27. DECK 2: STOP KEY (STOP)
28. DECK 2: REWIND/REVIEW (SKIP REWIND) KEY (REWIND/REVIEW)
29. DECK 2: CUT KEY
30. DECK 2: FAST FORWARD WIND/CUE (SKIP FORWARD) KEY (FAST FWD/CUE)
31. DECK 2: EJECTION KEY (EJECT)
32. DECK 2: TAPE COUNTER AND COUNTER RESET BUTTON
33. STEREO RECORDING LEVEL CONTROLS (REC LEVEL)
34. VU METER (LEFT CHANNEL)/BATTERY INDICATOR (VU/LEFT/BATTERY)
35. RECORDING MODE SWITCH (REC MODE)
36. DUBBING SWITCH (DUBBING)
37. VU METER (RIGHT CHANNEL)/TUNING INDICATOR (VU/RIGHT/TUNING)
38. DECK 1: TAPE SELECTOR SWITCH (TAPE SELECT 1)
39. DECK 2: TAPE SELECTOR SWITCH (TAPE SELECT 2)
40. SNRS (SUPER NOISE REDUCTION SYSTEM) SWITCH
41. METER SELECTOR/DIAL LIGHT SWITCH (METER/LIGHT)
42. FM MODE/FM MUTING SWITCH (FM MODE/MUTE)
43. WAVE BAND SELECTOR SWITCH (BAND)
44. RADIO ECHO INDICATOR
45. DUBBING INDICATOR (DUBBING)
46. FM STEREO BROADCAST INDICATOR (FM STEREO)
47. FINE TUNING CONTROL (FINE TUNING)
48. TUNING CONTROL
49. and 50. APLD INPUT BUTTONS AND INDICATORS (APLD: 1-7)
51. FUNCTION SWITCH (FUNCTION)
52. DECK MODE SELECTOR SWITCH (TAPE OPERATION)
53. MIXING SWITCH
54. ECHO CONTROL
55. MICROPHONE FADER CONTROL (MIC FADER)
56. TAPE FADING CONTROL (TAPE FADER)
57. BASS TONE CONTROL (BASS)
58. TREBLE TONE CONTROL (TREBLE)
59. CHANNEL BALANCE CONTROL (BALANCE)
60. OUTPUT VOLUME CONTROL (VOLUME)
61. LOUDNESS SWITCH
62. POWER SWITCH (POWER)
63. POWER INDICATOR (POWER)
64. FM ANTENNA TERMINALS (FM EXT. ANT)
65. LINE OUTPUT SOCKETS (LINE OUT)
66. INPUT SELECTOR SWITCH
67. RECORD PLAYER INPUT AND LINE INPUT SOCKETS (INPUT)
68. EARTHING TERMINAL (GND)
69. and 70. REMOTE START/STOP CONTROL SOCKET (REM) AND EXTERNAL MICROPHONE SOCKET (EXT MIC)
71. AC SUPPLY VOLTAGE SELECTOR (VOLTAGE)
72. AC SUPPLY INPUT TERMINAL (AC INPUT)
73. 15 VOLT DC TERMINAL (DC 15V)
74. BATTERY COMPARTMENT
75. BEAT INTERFERENCE CANCELLING SWITCH (BEAT CANCEL)
76. EXTERNAL SUPER WOOFER SOCKETS
77. EXTERNAL MAIN SPEAKER SOCKETS (EXT SP. MAIN)
78. TELESCOPIC ANTENNA

PREPARATION FOR USE

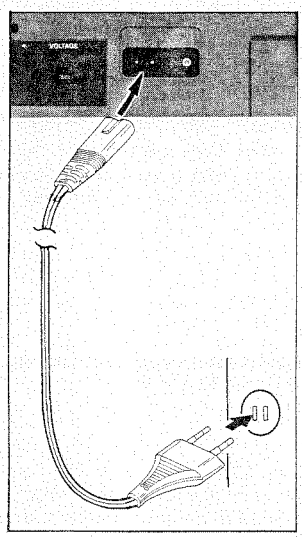
1 POWER SUPPLY

The GF-777H Unit will operate on an AC supply of 110 Volts, 220 Volts or 240 Volts 50Hz or 60Hz. For portable use it will operate on its internal batteries, or from an external 15Volts supply (with an adaptor).

2 AC SUPPLY OPERATION



AC SUPPLY VOLTAGE ADJUSTMENT
The Voltage Selector setting should be checked to see that it conforms to the local AC supply voltage. This must be done before plugging into AC supply. Adjustment is made by turning the adjusting screw in either direction with a screwdriver until reading of Selector matches the local AC supply voltage.



Connection to AC Supply

1. Connect the AC supply cord connector to the AC INPUT terminal point on the Unit.
2. Connect the AC supply plug (the other end connector of the cord) to the AC supply (110, 220 or 240V).

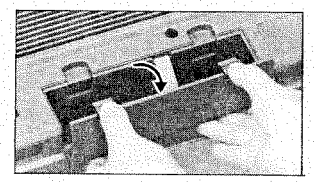
Notes

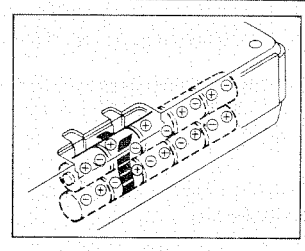
1. Connection of AC INPUT Terminal with connector cuts out internal batteries, (if installed).
2. Disconnect AC INPUT Terminal Connector in order to operate Unit with its internal batteries, (if installed).
3. Operate the Unit with the AC supply in order to conserve battery power, or when batteries are not installed.
4. Disconnect AC supply plug from AC supply outlet when the Unit is not being used for long periods.

3 INTERNAL BATTERY OPERATION

It is advisable to use AC power for long periods of recording.

1. Disconnect the AC Supply Cord Connector from AC INPUT Terminal of the Unit.
2. Remove Battery Compartment Cover.

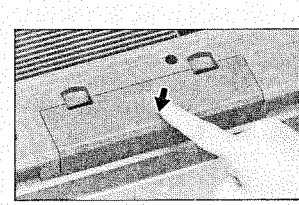




3. Install ten batteries into the Battery Compartment. Use the UM/SUM-1; R-20; HP-2; or D type batteries.

Notes

1) Be careful to install batteries in series.
2) Be careful when installing batteries to ensure that all battery terminals, and the Unit's battery terminal contacts are perfectly clean. Dust between contacting terminals will cause malfunction of operation.



4. Replace Battery Compartment Cover. Unit is ready for internal battery power supply operation.

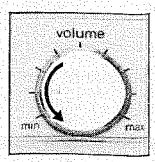
Caution

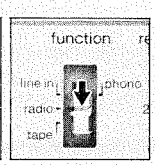
Remove batteries from the Unit when the Unit is not intended for use over long periods. Also remove batteries when batteries power is weakened. Leaking electrolyte from batteries will cause serious damage to the Unit.

4 INTERNAL BATTERY CONDITION CHECK

The battery check serves as an indication of the effective battery life. Batteries should be replaced according to the BATTERY meter display.

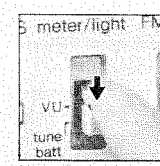
1. Disconnect the AC INPUT Terminal connector.
2. Disconnect the connector from the DC 15V Terminal.



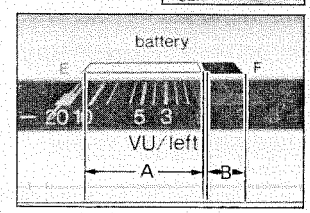


3. Turn the VOLUME Control to the MIN position.
4. Slide the FUNCTION Switch to the TAPE position.

5. Depress the PLAY Key of either Deck 1 or of Deck 2.



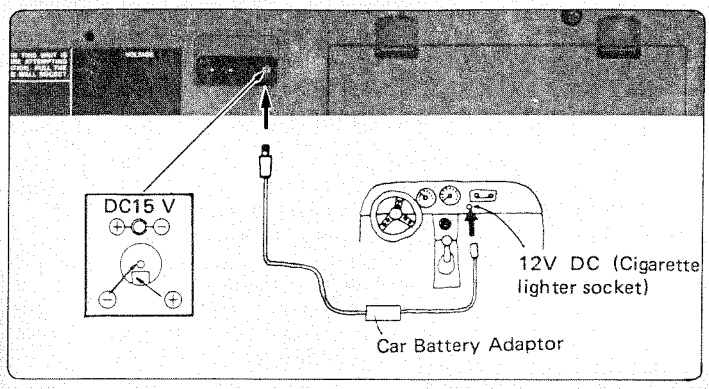
6. Slide the METER/LIGHT Switch to the TUNE/BATT position and hold in that position.



7. View the BATTERY meter.
8. Replace batteries, if the pointer of BATTERY meter enters the "A" zone. (See the illustration.)
9. Do not attempt to replace batteries as long as the pointer is within the "B" zone.

ENGLISH

5 EXTERNAL DC POWER SUPPLY OPERATION



The Unit can be operated on an external 15 Volt, DC, supply. With the use of the Car Battery Adaptor (not supplied) it is possible to use a 12 Volt vehicle battery.

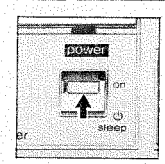
1. Plug the Connector of Car Battery Adaptor into the DC 15V Terminal point on the Unit.
2. Plug the other end of the Adaptor (with plug fitted) into the vehicle's 12 Volt, DC, cigarette lighter socket on the dash board.

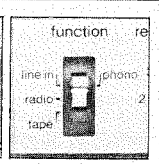
Note:
Connection of Car Battery Adaptor to the DC 15V Terminal point will cut out the internal batteries.

ENGLISH

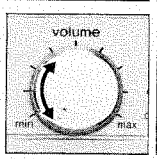
RADIO OPERATION

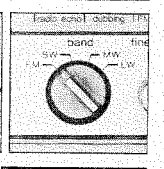
1 FM (FREQUENCY MODULATION) RECEPTION



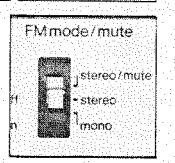


1. Slide the POWER Switch to the ON position.
   POWER Indicator illuminates.
2. Slide the FUNCTION Switch to the RADIO position.



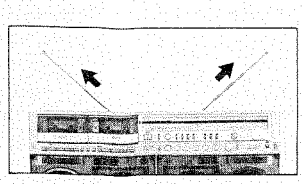


3. Increase the VOLUME Control slightly from MIN position.
4. Turn the BAND Switch to the FM position.

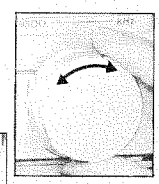


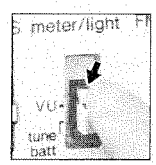
5. Slide the FM MODE/MUTE Switch to the appropriate position:
   a) STEREO/MUTE: when receiving powerful FM Stereo broadcast.
   b) STEREO: when receiving weak FM Stereo broadcast.
   c) MONO: when receiving weak Stereo or Mono FM broadcast — reproduction will be mono.

Notes:
1. Position a) or b) permits reception of FM stereo or mono broadcasts. Selection of stereo or mono broadcast is automatic (stereo broadcast is received when stereo broadcast is transmitted; mono broadcast is received when mono broadcast is transmitted).
2. Position a) muting will eliminate inter-station noise occurring during the tuning of broadcast. However weak FM broadcasts will also be muted and not heard.
3. Position b) permits reception of FM stereo and mono broadcasts. Selection of stereo or mono broadcast is automatic; (stereo broadcast is received when stereo broadcast is transmitted: mono broadcast is received when mono broadcast is transmitted).
4. Position b) cuts out muting.
5. Position c) cuts out muting.



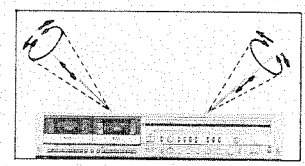
6. Raise and extend the telescopic antenna.



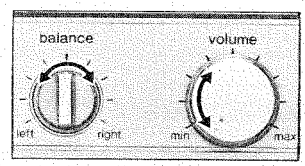


7. Rotate the TUNING Control in order to tune in the broadcast. Also slide the METER/LIGHT Switch to the TUNE/BATT position. Continue tuning in the broadcast until the maximum deflection of the pointer on the TUNING Meter.

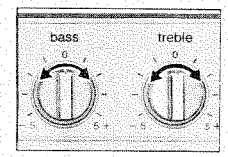
8. FM STEREO Indicator illuminates if stereo broadcast is received.



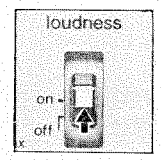
9. Adjust the length and axis of the Telescopic Antenna until the maximum deflection of the pointer on TUNING/VU meter.



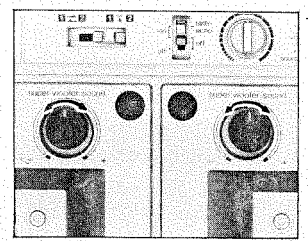
10. Turn the VOLUME Control to a position which results in a suitable acoustic effect for the listening environment.
11. Turn the BALANCE Control to a position between the left channel (L) and right channel (R) in order to balance the audible output of the left and right channel speakers.



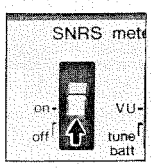
12. Turn the TREBLE and BASS Controls in order to adjust the treble and bass contents of the audio reproduction. Turn the TREBLE and BASS Controls towards the plus signs (+) in order to boost treble and bass contents, toward the center in order to flatten treble and bass contents, and towards the minus signs (–) in order to cut the treble and bass contents.



13. When listening to the sound at a very low volume settings, set the LOUDNESS switch to the ON position in order to compensate bass and treble deficiencies.

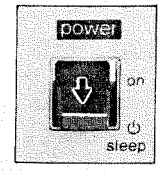


14. The SUPER WOOFER SOUND control offers greater bass amplification than the regular bass control. The control knobs are located inside the mesh of either speaker (to adjust volume this mesh must be removed, see page 15). Turning the knob in a clockwise direction increases the volume from the super woofer.



15. In cases of noticeable noise during radio broadcasts, tape playback or record reproduction (through INPUT Sockets), slide the SNRS Switch to the ON position. For normal operation, set the switch at the OFF position.

16. If the signal is too weak and noise is noticeable, use an external FM antenna. Refer to the instructions on page 15.

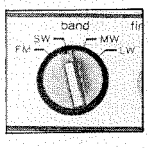


17. Slide the POWER Switch to ⏻ / SLEEP position in order to turn off the radio: POWER Indicator will extinguish.

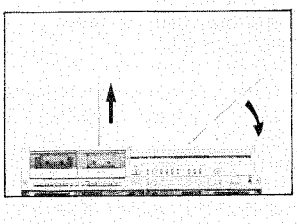
Caution
With the POWER Switch in the ⏻ / SLEEP position the AC power supply to the Unit is not turned off. Disconnect the AC supply plug from the AC supply socket in order to cut off AC power to the Unit.

ENGLISH

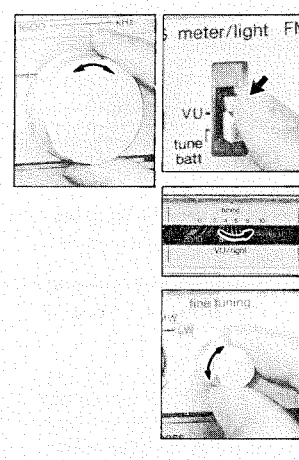
2 SW (SHORT WAVE) RECEPTION



1. Perform steps 1 to 4 mentioned for FM Reception on page 5
2. Turn the BAND Switch to the SW position.



3. Raise and extend the left side telescopic antenna to a vertical position. Do not raise and extend the right side antenna. If it is already raised and extended, then retract it and fit into the right side antenna lock clip, (on the top panel of the Unit).

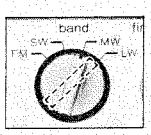


4. Rotate the TUNING Control in order to tune in the broadcast. Also slide the METER/LIGHT Switch to the TUNE/BATT position. Continue tuning in the broadcast until the maximum deflection of the pointer on the TUNING Meter.

For further tuning rotate the FINE TUNING Control until the maximum deflection of the pointer on the TUNING Meter.

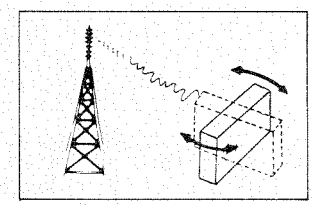
5. Perform steps 10 to 15 mentioned for FM Reception on page 5 and this page.

3 MW (MEDIUM WAVE) OR LW (LONG WAVE) RECEPTION



1. Perform steps 1 to 4 mentioned for FM Reception on page 5.
2. Turn the BAND Switch to the MW or LW position.

3. Perform steps 7 and 10 to 15 of FM Reception mentioned on page 5 and this page.



4. Rotate the Unit around the vertical axis in order to orientate the internal directional antenna for peak gain.

CASSETTE TAPE RECORDER OPERATION

1 NOTES ON CASSETTE TAPES AND DECKS

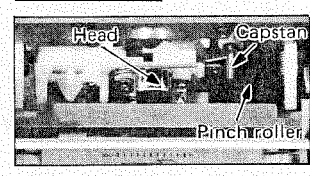
1. Use well-known brands of Cassette Tapes.

2. Avoid use of C-120 type Cassette Tapes.

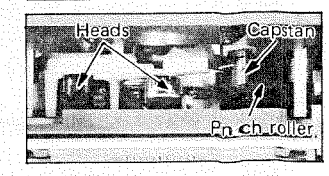
3. When quality of recording is below standard the cause may be a deposit of oxide and other tape materials on the magnetic Heads. This will happen more frequently with the use of low quality Cassette Tapes. Cleaning of Heads is performed with a Cleaning Cassette (not supplied). Use the Cleaning Cassette according to manufacturer's instructions and avoid prolonged use – longer than required to clean the Heads – because this will cause unnecessary wear of Heads. The reduction in the quality of recording is not, therefore, due to any fault of the Unit.

4. Heads can also be cleaned manually by wiping the Heads with cotton wadding on a stick which has been moistened with methylated spirits. Wipe the Heads until the deposit is removed.

TAPE 1



TAPE 2



Caution
1. Do not attempt to clean the Heads with any hard instrument. Scraping the Heads with a hard instrument will cause serious damage.
2. Do not use any organic solvents for cleaning the Heads – benzine, thinners, etc.

2 MECHANISM FAULT

a. Tape jamming causing irregular playback speed.
b. Tape tangling around the Capstan Roller.
The above difficulties can be avoided if the following precautions are taken.

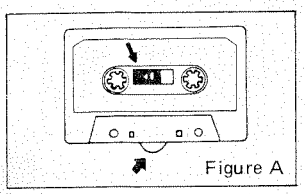


Figure A

1. Inspect the Cassette for loosely wound tape spools. The spools can be viewed through the window in the centre of the cassette; refer to figure A.

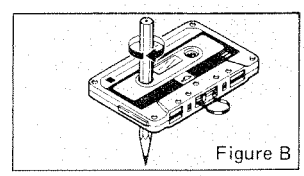


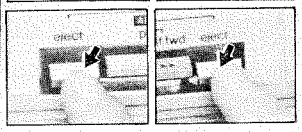
Figure B

Loosely wound spools can be tightened by winding the spool with a pencil or similar object inserted into the spool spindle hole; refer to figure B.

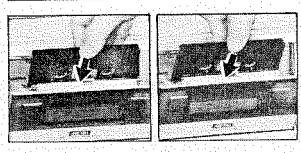
2. If the cassette appears to be very stiff and winds slowly the cause may be due to folds or overlapping windings on the spool. The difficulty can be resolved by fast forward winding of the Cassette followed by rewinding.

3 LOADING AND UNLOADING CASSETTE TAPES

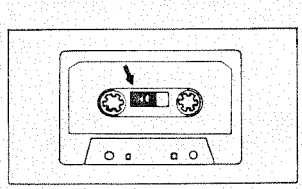
TAPE 1 TAPE 2



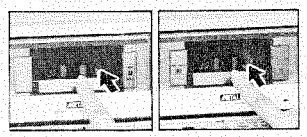
1. Depress the EJECT Key in order to open the Cassette Compartment — of Deck 1 or Deck 2.



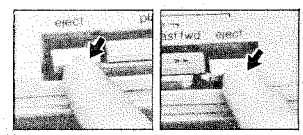
2. Place a Cassette into the Compartment with the side to be recorded or played, A or B (1 or 2) side, facing outward. Also place the Cassette in the Compartment with the strip of exposed tape facing downward.



3. Before commencing recording or play check that tape is wound onto the left hand spool. If the tape is wound onto the right hand spool then either reverse the side of Cassette in the Compartment, turn A side over to B side, or vice versa; or rewind the tape, refer to page 13.



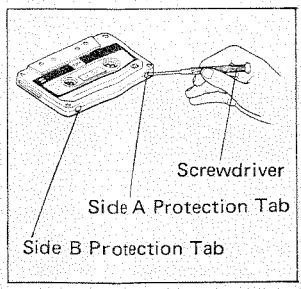
4. Close the Compartment Cover.



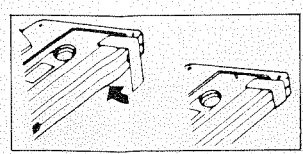
5. Depress the EJECT Key in order to open the Cassette Compartment Cover when unloading the Cassette. Remove the Cassette by hand.

Notes:
1) Deck [1] will play Cassette Tapes with the APLD operation.
Deck [1] cannot be used for recording.
2) Deck [2] will play and record Cassette Tapes.
3) Cassette Tapes loaded for recording must be placed into Deck [2]
4) Do not depress the PLAY Key while the Cassette compartment is open because this will cause damage.

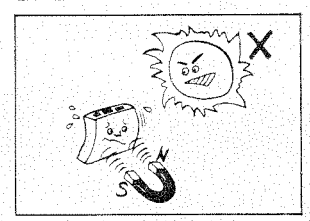
4 ERASURE PROTECTION



In order to protect recorded tapes from accidental erasure the erasure tabs fitted to the edge of the Cassette should be removed (with a minus screwdriver). (Illustration shows that the side "A" is facing upwards.) Cassette Tapes treated in this manner cannot be erased and when in the Cassette Compartment of Deck 2 it will not be possible to depress the RECORD Key. Erasure protection of side A (or 1) of the Cassette requires the removal of tab A (or 1); and side B (2) the removal of tab B (or 2).
The Cassette Tapes treated in this manner can be used for recording if the open tab holes are covered with a strong plastic tape.



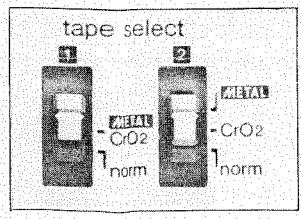
5 CASSETTE STORING



1. Do not store or place the Cassette in storing magnetic fields such as those radiating from TV sets, loud-speakers, etc.
Exposure to magnetic radiation will reduce the recording sensitivity or even erase the recording.

2. Do not store the Cassette in hot, moist, or dusty environments.

6 TAPE SELECTOR SWITCH OPERATION



1. Slide the TAPE SELECT [1] Switch to the NORMAL or to the CrO_2/METAL position in order to match the circuit with the Cassette Tape being used on Deck 1 (for playing).

2. Do the same for TAPE SELECT [2] switch. The TAPE SELECT [2] Switch is effective during playing and recording of Cassette Tape.

3. The Unit has been adjusted to match the following Cassette Tapes.

Normal.....	SHARP C-60SD/C-90SD
	MAXELL UD C-60/C-90
CrO_2	MAXELL UDXLII C-60/C-90
Metal	SHARP C-60MX
	TDK MA C-46/C-60

4. Other manufacturer's Cassette Tapes are suitable for the Unit if the TAPE SELECT switches [1] and [2] are operated so as to match the Unit's circuits with the type of tape used. Refer to the table on page 8 for correct matching.

Brand	Type of tape	Position of [1] switch	Position of [2] switch	
		Playback	Recording	Playback
SHARP	C-46S/C-60S/C-90S	normal	normal	normal
	C-46SD/C-60SD/C-90SD			
	C-60CR/C-90CR	CrO_2/metal	CrO_2	CrO_2
	C-46MX/C-60MX/C-90MX	CrO_2/metal	metal	metal
MAXELL	LN C-60/C-90	normal	normal	normal
	UD C-60/C-90			
	UD-XLI C-60/C-90			
	UD-XL II C-60/C-90	CrO_2/metal	CrO_2	CrO_2
	METAL C-46/C-60	CrO_2/metal	metal	metal
TDK	D-C-60/C-90	normal	normal	normal
	AD-C-60/C-90			
	SA-C-60/C-90	CrO_2/metal	CrO_2	CrO_2
	MA-R C-46/C-60	CrO_2/metal	metal	CrO_2
	MA-C-46/C-60			
SONY	LNX-60/90	normal	normal	normal
	HFX-60/90			
	SHF-60/90			
	FE-CR-60/90	CrO_2/metal	normal	CrO_2
	EHF-60/90	CrO_2/metal	CrO_2	CrO_2
FUJI FILM	FL C-60/C-90	normal	normal	normal
	FX-I C-60/C-90			
	FX-II C-60/C-90	CrO_2/metal	CrO_2	CrO_2
	METAL C-46/C-60	CrO_2/metal	metal	metal
SCOTCH	MASTER I C-60/C-90	normal	normal	normal
	MASTER II C-60/C-90	CrO_2/metal	CrO_2	CrO_2
	MASTER III C-60/C-90	CrO_2/metal	normal	CrO_2
	METAFINE C-46/C-90	CrO_2/metal	metal	metal
MEMOREX	MRX_3 OXIDE C-60/C-90	normal	normal	normal
	HIGH BIAS C-60/C-90	CrO_2/metal	CrO_2	CrO_2
AMPEX	GRAND MASTER I C-60/C-90	normal	normal	normal
	GRAND MASTER II C-60/C-90	CrO_2/metal	CrO_2	CrO_2
	PROFESSIONAL-I C-60/C-90	normal	normal	normal
BASF	PROFESSIONAL-II C-60/C-90	CrO_2/metal	CrO_2	CrO_2
	PROFESSIONAL-III C-60/C-90	CrO_2/metal	normal	CrO_2

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7 RECORDING FROM THE UNIT'S RADIO

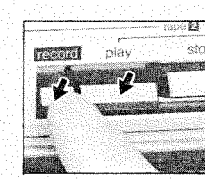
Note:
Audio-visual material may consist of copyrighted works which must not be recorded without the authority of the owner of the copyright. Please refer to relevant law in your country.

Recording is possible only on Deck 2. Therefore the following instructions are relevant to Deck 2.

1. Prepare the Unit for radio reception. Refer to appropriate section of Radio Operation on pages 5 and 6.
2. Load a Cassette Tape into the Cassette Compartment of Deck 2. Refer to the instructions on page 7.
3. Slide TAPE SELECT [2] Switch to the NORMAL, CrO_2 or METAL position as mentioned in section on page 7 and this page.

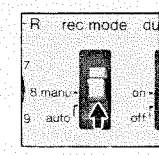
4. Slide the MIXING Switch to the MIX MIC OFF position (if not already in that position.

5. Depress the PAUSE Key of Deck 2. Normally Cassette Tapes are provided with leader tapes on both ends. Therefore with a completely wound tape the recording should be started not immediately but allowing the leader tapes to pass through the Deck for about 5 seconds. After making a 5 second programme gap on the tape then start recording.

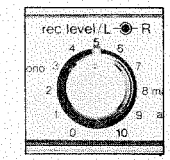


6. Depress the RECORD Key of Deck 2. The PLAY Key will engage automatically.

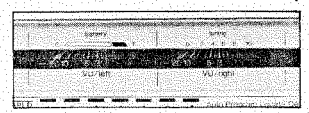
Notes:
1) The RECORD Key cannot be depressed if the Cassette has been protected against erasure. Refer to the instructions on page 7.
2) The RECORD Key cannot be depressed if the Cassete Compartment is not loaded with a Cassette.
3) The RECORD Key cannot be depressed if the PLAY Key has already been engaged. In this case do not attempt to depress the RECORD Key with force.

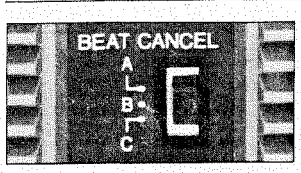


7. Slide the REC MODE Switch to the MANU position in order to adjust the recording level with the REC LEVEL Controls (refer to the next step), or slide REC MODE Switch to the AUTO position in order to engage automatic recording level control.



8. Adjust the REC LEVEL Controls ([L] for the left channel and [R] for the right channel) such that the indicator of the VU meter is at the "0" position for the highest signal level to be recorded.

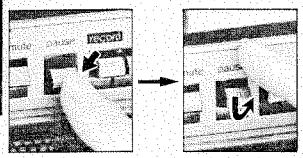




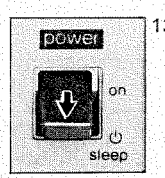
9. Slide BEAT CANCEL Switch to "A" position or to "B" position or to "C" position in order to cancel the maximum amount of beat interference when tuned to AM broadcasts.

10. Depress the PAUSE Key in order to release it at moment recording is to start.

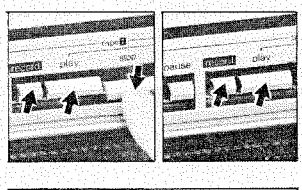
11. Adjustment of the VOLUME, BALANCE, BASS and TREBLE Controls and LOUDNESS Switch will not alter the recording level. Refer to page 5.



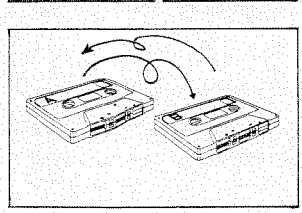
12. Depress the PAUSE Key in order to interrupt the recording on Deck 2. Tape motion will stop when the PAUSE Key is engaged (Audio Output from unit's speakers or headphones will be lowered) and resume from the point of stopping when PAUSE Key is released (depressed for the second time).



13. Slide the POWER Switch to the ⏻ /SLEEP position. Recording process will continue until Cassette Tape has reached its end and Deck 2 automatically stops. Refer to the Sleep System instructions mentioned on page 14.



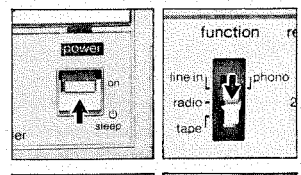
14. Depress the STOP Key in order to stop the recording process — at the end of recording.
15. Recording process will continue until Cassette Tape has reached its end and the Deck 2 automatically stops. All Keys are disengaged.



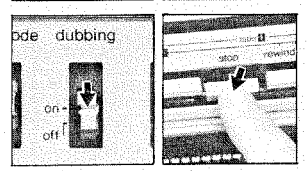
16. Recording (or playback) can be continued on the reverse side of the Cassette Tape.
Perform steps 5, 2 and 4 in sequence for Unloading and Loading of Cassette Tapes mentioned on page 7 and also steps 5, 6 and 10 for Recording from Unit's Radio.

8 RECORDING WITH THE UNIT'S MICROPHONES

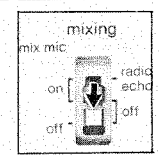
1. Disconnect the plugs from EXT MIC Sockets, (if connected).



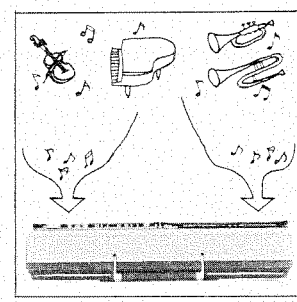
2. Slide the POWER Switch to the ON position.
3. Slide the FUNCTION Switch to the TAPE position.



4. Slide the DUBBING Switch to the OFF position, (if not already in that position.)
5. Depress the STOP Key of Deck 1 (if the tape is running).



6. Slide the MIXING Switch to the MIX MIC OFF position (if not already in that position).



7. When recording, for optimal sound reproduction, position the front panel of the unit such that it faces, and place the unit as close as possible to the sound source.
8. Perform steps 2 to 8 and step 10 of Recording from the Unit's Radio mentioned on page 8 and this page.

Note:
Monitoring of recording with headphones or with the Unit's speakers is not possible.

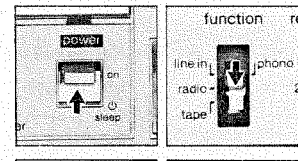
9 PLAYBACK

The Unit can playback Cassette Tapes in a variety of combinations using Deck 1 and Deck 2.

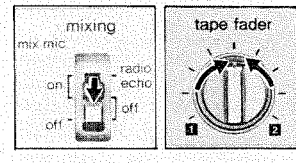
1) Individual Playback.
Playback from Deck 1 or playback from Deck 2.
2) Simultaneous Playback.
Deck 1 and Deck 2 playback together. Playback of Deck 1 and playback of Deck 2 are mixed in the speaker output. Or Deck 1 playback can be monitored with Headphones and Deck 2 playback can be heard with the unit's speakers or Headphones.
3) Sequential Playback.
Playback from Deck 1 is followed in sequence by playback from Deck 2. Or playback from Deck 2 is followed in sequence by playback from Deck 1.

■ INDIVIDUAL PLAYBACK

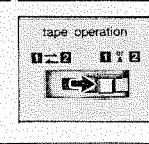
1. Perform steps of Cassette Tape Loading and Unloading mentioned on page 7 in order to load Cassette Tapes into Deck 1 or Deck 2.
2. Slide the TAPE SELECT [1] Switch or TAPE SELECT [2] Switch to the proper position. (Refer to Tape Selector Switch Operation on page 7.)



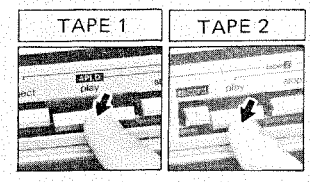
3. Slide the POWER Switch to the ON position.
4. Slide the FUNCTION Switch to the TAPE position.



5. Slide the MIXING Switch to MIX MIC OFF position.
6. Slide the TAPE FADER Control to the central position between [1] and [2].

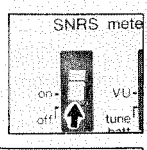


7. Slide the TAPE OPERATION Switch to the [1] or [2] position.

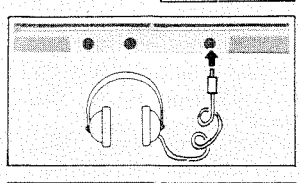


8. Depress Deck 1 or Deck 2 PLAY Key. Deck 1 or Deck 2 will commence playback of Cassette Tape.

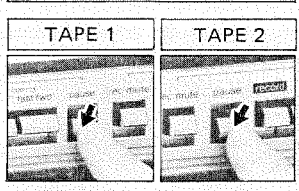
9. Turn VOLUME, BALANCE, BASS, TREBLE and Slide the LOUDNESS Switch Controls respectively, in order to adjust the audio reproduction suitable for the acoustic environment. Refer to page 5.



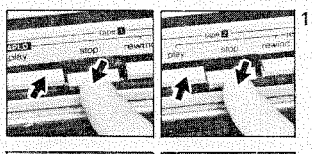
10. Slide the SNRS Switch to the ON position in order to reduce tape hiss noise. Slide the SNRS Switch to the OFF position after using the SNRS.



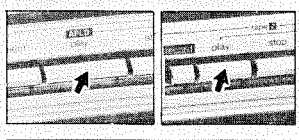
11. Plug the stereo headphones into the PHONES Socket, if required. Refer to Headphones, page 16.



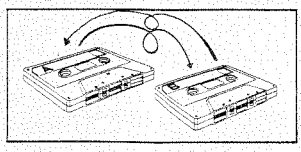
12. Depress the PAUSE Key in order to interrupt the playback of Deck 1 or Deck 2. Tape motion will stop when the PAUSE Key is engaged and resume from the point of stopping when PAUSE Key is released (de pressed for the second time).



13. Depress the STOP Key in order to stop Deck 1 or Deck 2.



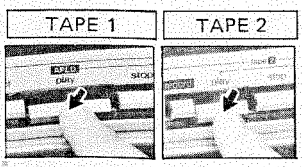
14. Deck 1 or Deck 2 will automatically stop and the PLAY Key will disengage when the Cassette Tape reaches the end.



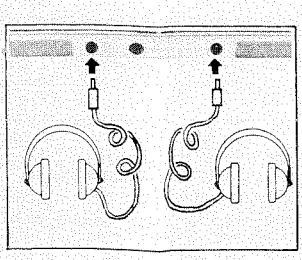
15. Both sides of the Cassette Tape can be played on Deck 1 or on Deck 2. When the Cassette Tape reaches the end, the reverse side of the Cassette Tape is ready for playback.

■ SIMULTANEOUS PLAYBACK

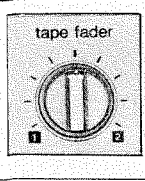
Deck 1 and Deck 2 can be played simultaneously.



1. Depress the PLAY Keys of Deck 1 and of Deck 2.
2. The stereo audio reproduction from the Cassette Tapes on Deck 1 and Deck 2 will be heard from the speakers output — left channel and right channel.



3. Plug the stereo headphones into the TAPE 1 MONITOR Socket in order to hear the stereo audio reproduction from Deck 1. Deck 2 stereo audio reproduction will be heard from the speakers output or headphones through PHONES Socket.



4. Slide the TAPE FADER Control to adjust volume balance between Deck 1 and Dcek 2.

■ SEQUENTIAL PLAYBACK

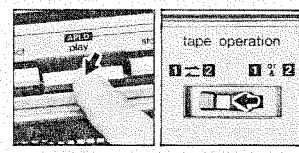
Sequential playback from Deck 1 to Deck 2 or from Deck 2 to Deck 1 is possible.

1. Load two Cassette Tapes into Deck 1 and also into Deck 2 Cassette Compartments. Refer to instructions for Loading and Unloading Cassette Tapes mentioned on page 7.

2. Arrange Cassette Tapes in Deck 1 and Deck 2 for the desired starting point. The APLD Fast Forward, or Rewind operation will be useful for this. Refer to the APLD Operation instructions mentioned on pages 11 and 12.

3. Slide the TAPE SELECT [1] or [2] Switch to the proper position. Refer to reference chart and instructions on pages 7 and 8.

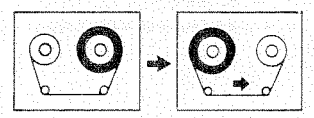
4. Perform the steps 3 thru 6 of individual Playback mentioned on page 9.



5. Depress the PLAY Key of the Deck which is to be played first. Playback on the Deck to be played first will start.

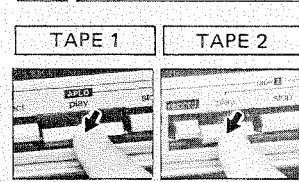
6. Slide the TAPE OPERATION Switch to the [1] ⇋ [2] position.

7. Depress the PLAY Key of the Deck which is to be played finally.



8. Playback of the Cassette Tape to be played finally will begin when the Cassette Tape Deck played first has ended.

10 SKIPPING (CUEING OR REVIEWING)



1. Depress the PLAY key of Deck 1 and/or Deck 2 (if not already depressed).

2. Depress the FAST FWD/CUE Key of Deck 1 and/or Deck 2 in order to wind the Cassette Tape forward rapidly. The FAST FWD/CUE Key does not lock in position and the Cassette Tape will wind forward as long as the Key is held in the depressed position. When the FAST FWD/CUE Key is released the Cassette Tape of Deck 1 and/or Deck 2 will resume playback.

3. Depress the REWIND/REVIEW Key of Deck 1 and/or Deck 2 in order to rewind the Cassette Tape rapidly. The REWIND/REVIEW Key does not lock in position and the Cassette Tape will rewind as long as the key is held in the depressed position. When the REWIND/REVIEW Key is released the Cassette Tape of Deck 1 and/or Deck 2 will resume playback.

ENGLISH

11 APLD (Auto Program Locate Device)

The APLD provides a positive means for finding separated programme items recorded on a Cassette Tape. The programme items – song, movements of a symphony, etc. – can be played at the push of a key in any combination of forward or reverse sequence. This arrangement eliminates the trial and error method of finding programme items on a Tape which was considered to be a disadvantage of the Tape Recorder in comparison with the Record Player.

Deck 1 of the GF-777H Unit is provided with the APLD which scans the forward or reverse motion of the Cassette Tape and detects the separation of programme items (gaps) on the recorded tape. At such gaps the Deck automatically commences play.

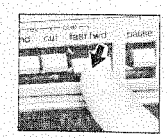
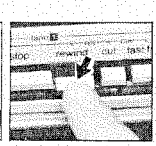
ENGLISH

Forward APLD operation – to find the start of a piece of music or other programme item whilst winding forward.
After programming steps mentioned below please follow the operation instructions regarding FORWARD APLD OPERATION.

Reverse (Rewind) APLD operation – to find the start of a piece of music or other programme item whilst rewinding.
After performing programming mentioned below regarding please follow the operation instructions REVERSE APLD OPERATION.

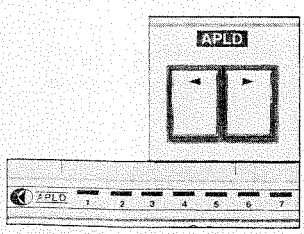
■ PROGRAMMING THE APLD COUNTER

The APLD can be programmed in order to play a section of items on the Cassette Tape that are more than two programme items apart – in either the forward or reverse direction. Up to 7 programme items can be selected in one operation; more items can be selected by a second programming operation after the first 7 programme items have been played. It is not necessary to programme the APLD for consecutive items or to skip to the next item to the one being played.

Skipping (forward or reverse)

1. Perform steps 1 to 8 for playing of Cassette Tape on Deck 1. Refer to pages 9 and 10.
2. Depress the FAST FWD Key in order to skip forward to the next item; or depress the REWIND Key in order to skip in reverse to the next item.

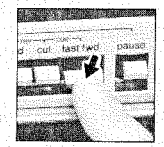


Selecting Programme Items

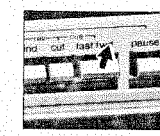
1. Perform steps 1 to 8 for playing of Cassette Tape on Deck 1. Refer to pages 9 and 10.
2. Count the number of gaps from the present position of Cassette Tape to the beginning of the selected item.
3. Push the APLD Input Button (◀ or ▶) that corresponds to the number of gaps counted in step 2: The APLD indicator will illuminate. The number of lit LED for APLD indicator shows the number of programmes that APLD is going to skip. As you keep pushing the ▶ button, the number of programmes that APLD skips increases, while the number of programmes decreases as you keep pushing the ◀ button.

■ FORWARD APLD OPERATION

1. Perform all steps for Selecting Programme Items mentioned at the left side of this page.
2. Depress the FAST FWD Key in order to wind the Cassette Tape forward rapidly.



3. Tape will rapidly wind forward while the APLD sensor searches for the selected program.
4. At the selected programme item, the FAST FWD key automatically releases and playback of the cassette tape automatically starts.



■ REVERSE APLD OPERATION

1. Perform all steps for Selecting Programme Items mentioned at the left side of this page.
2. Depress the REWIND Key in order to rewind the Cassette Tape rapidly.

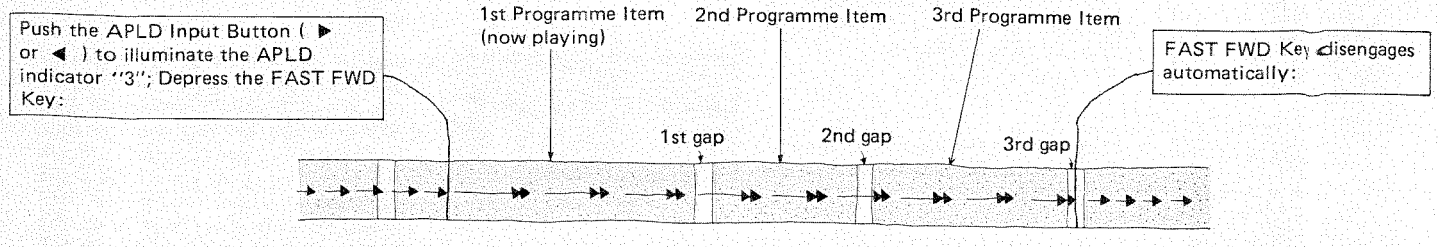
3. Tape will rapidly wind backward while the APLD sensor searches for the selected programme item.
4. At the selected programme item, the REWIND key automatically releases and playback of the cassette tape automatically starts.

Notes:

1) As the Cassette Tape advances or reverses the APLD indicators (1–7) illuminate corresponding to the number of items remaining.
2) Refer to the instructions below if any difficulties are encountered in the operation of the APLD.
3) In order to discontinue APLD operation in progress, depress the CUT key, and the deck will return to the playing mode.

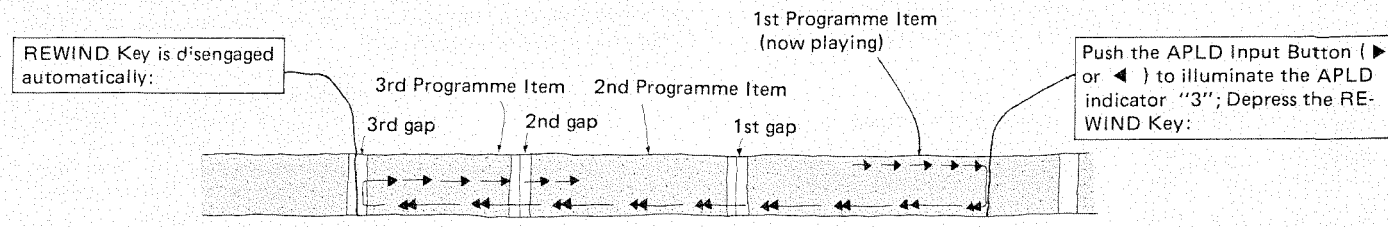
EXAMPLE

A. Skipping the next two programme items in sequence in order to begin playback at the third item ahead of the present position.


Push the APLD Input Button (▶ or ◀) to illuminate the APLD indicator "3"; Depress the FAST FWD Key:
1st Programme Item (now playing)
2nd Programme Item
3rd Programme Item
FAST FWD Key disengages automatically:
1st gap
2nd gap
3rd gap

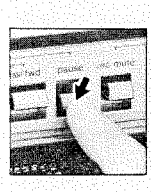
EXAMPLE

B. Skipping the previous two programme items in sequence in order to begin playback at the second item behind the present position.


REWIND Key is disengaged automatically:
1st Programme Item (now playing)
Push the APLD Input Button (▶ or ◀) to illuminate the APLD indicator "3"; Depress the REWIND Key:
3rd Programme Item
2nd Programme Item
3rd gap
2nd gap
1st gap

ENGLISH

APLD Forward Pause Control



1. Depress the PAUSE Key of Deck 1.
2. Perform all steps for Selecting Programme Items and also Forward APLD Operation mentioned on page 11.
3. The Cassette Tape motion will stop at the beginning of the selected programme item.

4. Depress the PAUSE Key again (to release) in order to start the playback of the selected programme item.

APLD Reverse Pause Control

1. Depress the PAUSE Key of Deck 1.
2. Perform all steps for Selecting Programme Items and also for Reverse APLD Operation mentioned on page 11.
3. The Cassette Tape motion will stop at the beginning of the selected programme item.

4. Depress the PAUSE Key again (to release) in order to start the playback of the selected programme item.

■ SUITABLE CASSETTE TAPES FOR APLD OPERATION

The APLD may not operate successfully with Cassette Tapes that have any of the following types of recording.

1. Cassette Tapes with intermittent recording — conversation, lectures, etc.
2. Cassette Tapes with recordings of soft classical music, solo performances, modern jazz, etc.
3. Cassette Tapes with low signal strength recordings — below — 15VU over the entire recording.
4. Cassette Tapes with recorded programme items separated by less than a three second gap.
5. Cassette Tapes with recordings containing high level noise occurring between the programme items.

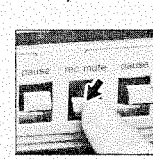
All these types of Cassette Tape recordings are not suited to APLD operation and may cause the APLD to start play at a point in midprogramme item, or to skip over programme items selected, or both.

■ NOTES ON APLD OPERATION

1. Avoid operation of the APLD when the play is close to the end of a programme item. This may cause a skipping of the item selected and playing of the following item.
2. Avoid placing the Unit near sources of powerful magnetic radiation TV sets, generators, electrical appliances during operation. Exposure to magnetic radiation will disturb the functioning of the APLD circuits.
3. Do not depress the FAST FWD Key or the REWIND Key during the recording of Cassette Tapes on Deck 2.
4. Any sound emitted from the speakers during APLD operation (searching for a programme item) does not indicate a fault in the Unit.

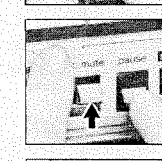
■ MAKING CASSETTE TAPES FOR APLD OPERATION

The majority of commercially available pre-recorded Cassette Tapes are produced with separate programme items of sufficient duration for use with the APLD on Deck 1. When recording Cassette Tapes on Deck 2 it will be necessary to separate the programme items during recording, or to edit gaps into continuously recorded Cassette Tapes.



1. Depress the REC MUTE Key of Deck 2 (for about 5 seconds) during the process of recording at a point suitable for making 2 gaps.

2. After about 5 seconds, depress the PAUSE Key of Deck 2 while keeping the REC MUTE Key depressed.

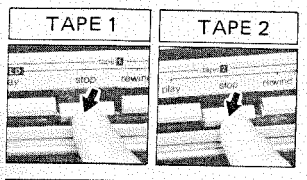


3. Release the REC MUTE Key. The gap is then edited onto the Cassette Tape recording.

4. Depress the PAUSE Key again (to disengage) at a suitable point for starting the recording of the next programme item.
5. Perform the steps 1 to 4 throughout the recording in order to edit the recording with gaps that will produce a recorded Cassette Tape suitable for APLD Deck 1 played.

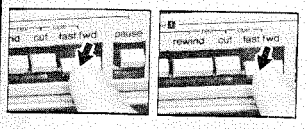
12 FAST FORWARD WINDING AND REWINDING

This is a method of searching for a position on the tape without using APLD. However, FAST FWD and REWIND keys are mainly used to wind the tape to its end, or to advance the tape to a desired programme with the help of the tape counter (refer to the instructions on page 15), for advancing the tape to an approximate position before reaching for the cue of a programme by use of APLD.

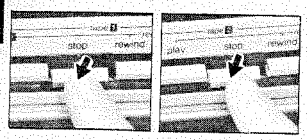


FAST FORWARD WINDING

1. Depress the STOP Key of Deck 1 and/or Deck 2 (if the tape is running).



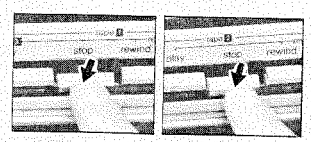
2. Depress the FAST FWD Key of Deck 1 and/or Deck 2 in order to wind the Cassette Tape forward rapidly.



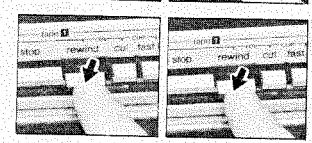
3. Depress the STOP Key of Deck 1 and/or Deck 2 again in order to stop the winding of the Cassette Tape on Deck 1 and/or Deck 2.

REWINDING

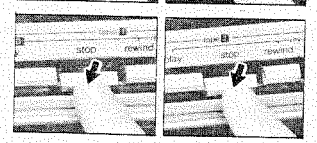
1. Depress the STOP Key of Deck 1 and/or Deck 2 (if the tape is running).



2. Depress the REWIND Key of Deck 1 and/or Deck 2 in order to rewind the Cassette Tape of Deck 1 and/or Deck 2.



3. Depress the STOP Key of Deck 1 and/or Deck 2 in order to stop the rewinding of the Cassette Tape on Deck 1 and/or Deck 2.



Notes:

1. Deck 1 and/or Deck 2 will stop automatically and all Keys disengage when the Cassette Tape of Deck 1 and/or Deck 2 is completely wound or rewound.
2. The automatic stopping and disengaging of Keys may not operate after the Cassette Tape of Deck 1 and/or Deck 2 is completely wound or rewound when operating the Unit on its internal battery power supply. This will be due to weak or exhausted batteries.
3. Depress the STOP Key of Deck 1 and/or Deck 2 before depressing the PLAY Key of Deck 1 and/or Deck 2 in order to return Deck 1 or Deck 2 from fast forward winding or rewinding to playback.
4. Depress the STOP Key of Deck 1 and/or Deck 2 before depressing the FAST FWD Key or the REWIND Key of Deck 1 and/or Deck 2 in order to reverse the winding operation from fast forward winding to rewinding, or from rewinding to fast forward winding.
5. When the Unit is given no power at all (with the AC supply cord plugged off a wall outler or with no battery loaded), if the STOP Key is depressed following a push of the Play Key, the Unit enters always in PLAY mode even when the FAST FWD Key or REWIND Key is depressed after the power is regained.

13 DUBBING (DUPLICATING)

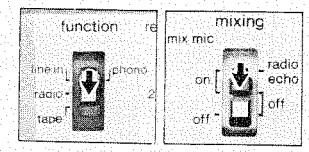
The Dual Deck System of the GF-777H permits dubbing operations without the need of another Tape Recorder. However dubbing can also be carried out with the use of an additional Tape Recorder if required – open reel or cartridge type recorder for example. Refer to page 16. Dubbing takes place from Deck 1 onto Deck 2.

NOTES: (dubbing preparations)

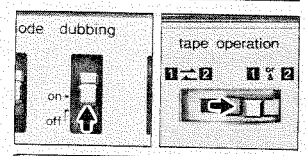
1. Disconnect Headphones jack from the TAPE 1 MONITOR Socket.
2. Disconnect Microphone jacks from the EXT MIC left channel (L) and right channel (R) Sockets.

DUBBING PROCEDURE

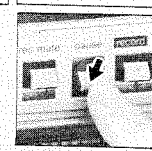
1. Load a pre-recorded Cassette Tape into the Cassette Compartment of Deck 1. Perform steps of Loading and Unloading Cassette Tapes mentioned on page 7.
2. Operate the APLD in order to prepare the Cassette Tape for the dubbing of selected programme item. Perform all the steps for Selecting Programme Items and Forward APLD Operation or Reverse APLD Operation mentioned on page 11.
3. Load a Cassette Tape suitable for recording into the Cassette Compartment of Deck 2. Perform all steps for Loading and Unloading Cassette Tapes mentioned on page 7.
4. Rewind the Cassette Tape to the start, or fast forward wind the Cassette Tape to the point at which dubbing is to start. Perform all steps for Fast Forward Winding or Rewinding mentioned on the left side of this page.
5. Slide the TAPE SELECT Switches of Deck 1 and Deck 2 to the proper positions. Refer to instructions and chart on pages 7 and 8.
6. Slide the FUNCTION selector switch to the TAPE position.
7. Slide the MIXING switch to the MIX MIC OFF position.



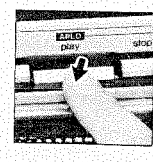
8. Slide the DUBBING Switch to the ON position in order to cut out the Unit's microphones. The DUBBING Indicator illuminates.
9. Slide the TAPE OPERATION Switch to the [1] or [2].



10. Depress the PAUSE Key of Deck 2.

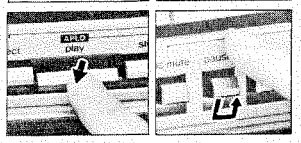


11. Depress the RECORD Key of Deck 2. (The PLAY Key will also engage.)

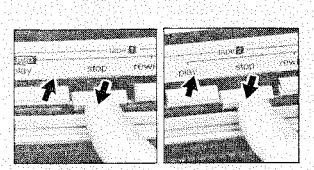


12. Depress the PLAY Key of Deck 1, (if not already depressed.); or PAUSE Key, (if APLD Programme Item Selection and Pause Control procedures have been followed.) Deck 1 starts playback of selected programme item required for dubbing.

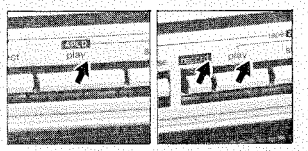
TAPE 1 | TAPE 2



13. Depress the PLAY Key of Deck 1 and also the PAUSE Key of Deck 2 together (to release). (Or depress the PAUSE Key of Deck 1 and also the PAUSE Key of Deck 2 if APLD procedures have been taken.) Dubbing from Deck 1 to Deck 2 begins.
14. Turn the VOLUME, BALANCE, BASS, and TREBLE Controls and slide the LOUDNESS switch to ON position in order to adjust reproduced audio characteristics. Refer to steps 10 thru 13 of FM Reception on page 5. Adjustment of these controls will not affect the recording level. In cases where sound reproduction is unnecessary, set the VOLUME control at the "0" position.



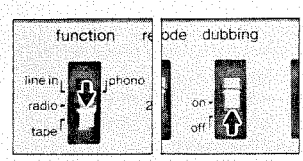
15. Depress the STOP Key of Deck 1 and Deck 2 in order to stop the dubbing.



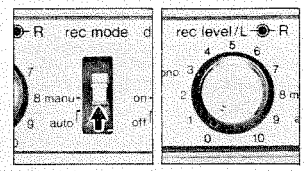
16. The Cassette Tapes in Deck 1 and Deck 2 will stop after reaching the ends, Deck 1 and Deck 2 will automatically disengage all Keys.

15 ERASURE OF RECORDED TAPES

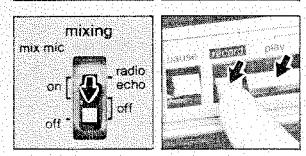
Recorded Cassette Tapes are erased during the new recording process. It is also possible to erase Cassette Tapes without recording.



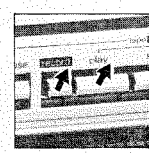
1. Slide the FUNCTION Switch to TAPE position.
2. Slide the DUBBING Switch to ON position.



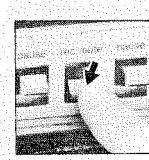
3. Slide the REC MODE Switch to MANU position.
4. Rotate REC LEVEL control to the "0" position.



5. Slide the MIXING Switch to the MIX MIC OFF position.
6. Depress the RECORD Key of Deck 2.



7. The Cassette Tape in Deck 2 will stop after reaching the end of the tape. All Deck 2 Keys will automatically disengage.



■ **REC MUTE SWITCH**
For short periods of tape erasure it is possible to use the REC MUTE Switch. Depress the REC MUTE Switch during the recording process.

ENGLISH

14 MULTI-RECORDINGS

Multi-recording is a method for superimposing voice and other sounds onto the original sound track by means of repeated mixing and dubbing.

1. Load Recorded Tape into Deck 1 and Unrecorded Tape into Deck 2.
2. Dubbing from Deck 1 to Deck 2 (refer to DUBBING on page 13). Record with another sound using Mixing Microphone (refer to pages 17 and 18).
3. Load the Tape of Deck 2 into Deck 1 and load Unrecorded Tape into Deck 2.
4. Repeat the same procedure with above (2).
5. By repeating above procedures of (2) and (3), multi-recording is possible.

16 SLEEP SYSTEM

This unit is equipped with a system that automatically shuts off all radio and audio circuits the moment the end of tape is reached. Ths function operates on fast forward, rewinding, playing or recording.

Sleeping While Listening to or Recording from Radio

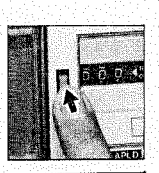
1. Perform steps of Recording from the Unit's Radio mentioned on pages 8 and 9. Or, perform steps of PLAYBACK mentioned on pages 9 and 10.
2. Slide the POWER switch to ⏻/SLEEP position.
3. The running time of the tape will depend on the type of Cassette Tape. For example, C-60 tape plays for half an hour before turning off the Unit. If shorter period of time is required, advance the tape to an estimated position on tape and then proceed with this operation, the time period can be made shorter. In cases of sequential playback, the total length of tape playback may be calculated by adding the playing times of the tapes inserted in Decks 1 and 2.

Tape used	Timer Period
C-46	approx. 23 mins.
C-60	approx. 30 mins.
C-90	approx. 45 mins.

17 TAPE COUNTER (for Deck 2)

By pressing the reset button, the tape counter is set to "000" (at the start of Cassette Tape), and the number displayed at the beginning of each recorded item can be noted. This provides a convenient reference. In order to locate the position of any item recorded on the tape use the noted tape counter number that precedes each item.

1. Rewind the tape to the beginning.

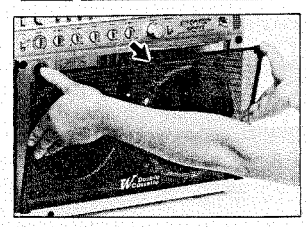


2. Then set the tape counter to read "000" and start fast forward winding until the number of the counter advances to the noted number.

3. In order to stop the tape when the noted number is reached, depress the STOP Key of Deck 2.

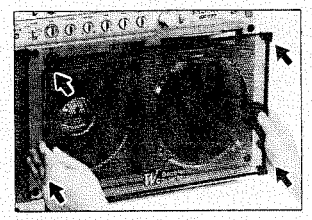
4. You are now ready to play the item by depressing the PLAY Key of Deck 2.

18 REMOVING AND ATTACHING THE FRONT MESH



REMOVAL

Position a finger at the top extremity of the speaker mesh and, pulling away from the unit, remove the upper portion of the mesh. Next, insert finger into this opening and, once again pulling away from the unit, remove the entire mesh. In this manner remove the meshes of both right and left speakers.



ATTACHMENT

Insert the projections on the corners of the speaker mesh (one projection at each corner) into the rubber holes in the unit body. Ensure proper attachment by pressing each corner such that each projection is fully inserted into its corresponding hole.

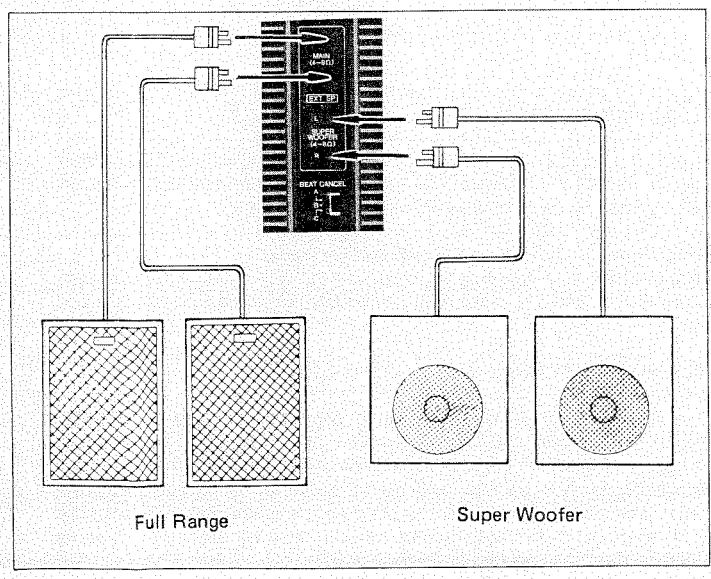
EXTERNAL UNITS

1 EXTERNAL SPEAKERS

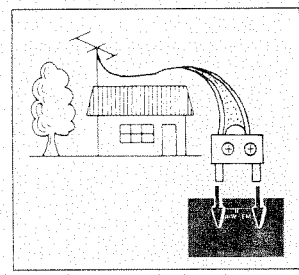
The GF-777H Unit can power external speakers (full range speakers and Super Woofers).

The external speakers require at 4 to 8 ohm impedance and the external speakers cords must be fitted with a DIN type connector. Also the connections made in the connector must phase the speakers correctly (seek advice from the SHARP dealer on this point).

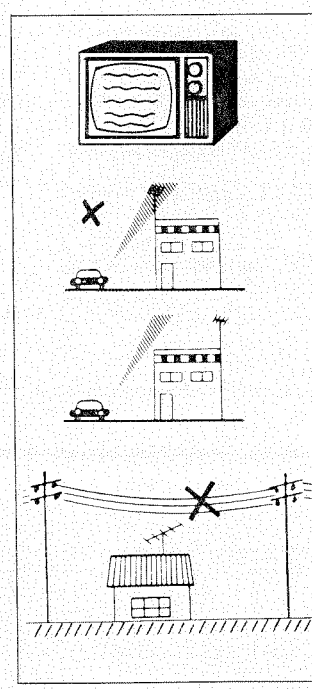
When the external speakers are connected to the Unit the internal speakers are cut out.



2 OUTDOOR (EXTERNAL) FM ANTENNA



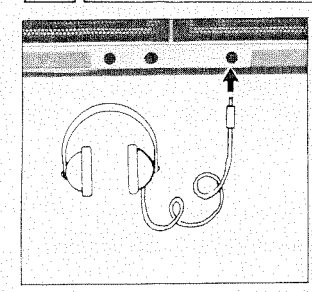
The FM radio reception gain can be improved with the use of an outdoor (external) antenna. If reception with the telescopic antenna is unsatisfactory then connect the outdoor antenna to the FM EXT ANT Terminals (on the rear of the Unit). Weak reception may be due to the geographical position of the receiver relative to the particular broadcast transmitter.



Notes:

1. Do not use an outdoor TV antenna instead of an outdoor FM antenna; the TV antenna will cause local TV reception interference.
2. Place the outdoor antenna as far away as conveniently possible from roads and railways.
3. Do not set up the outdoor antenna near to power cables or any other power circuitry.

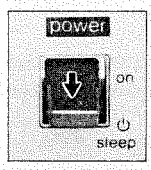
3 HEADPHONES



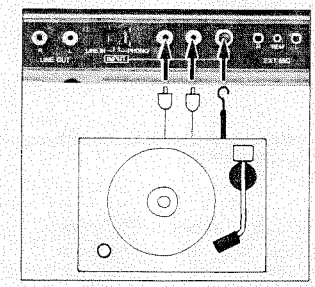
For listening to the sound in environments which are not suited to speaker sound reproduction (excessively noisy place or places where other people prefer silence) the use of stereo headphones is recommended.
Plug stereo headphones into the PHONES Socket (on the front panel of the Unit) if headphones listening is desirable.
The speakers output will be cut off when headphones plug is connected. SHARP Stereo Headphones (not supplied) are recommended: Models HP-30; HP-40; HP-200; HP-300; or HP-400H.

4 RECORD PLAYER AUDIO REPRODUCTION

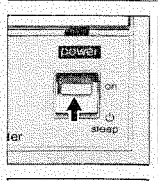
The GF-777H Unit can be connected to the output of a stereo magnetic cartridge pick-up used on a Record Player because the Unit is provided with an equalizing circuit for this purpose. Ceramic and Crystal cartridges are not suited to the circuits of the Unit.

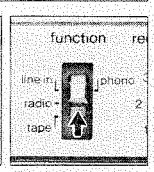


1. Slide the POWER Switch to the ⏻ / SLEEP position.



2. Connect the output cables from the stereo magnetic cartridge of the Record Player to the INPUT Sockets left channel (L) and right channel (R) of the Unit.
3. Connect the grounding wire of the Record Player (if provided) to GND Terminal of the Unit.





4. Slide the POWER Switch to the ON position.
5. Slide the FUNCTION Selector Switch to the PHONO/LINE IN position.

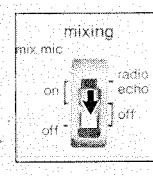
6. Slide the INPUT Selector Switch on the back panel to the PHONO position.
7. Slide the MIXING Switch to the MIX MIC OFF position.
8. Prepare the Record Player for playing a stereo record.
9. Adjust the Controls of the recorder to appropriate positions for suitable audio characteristics. Perform the steps 10 thru 13 of FM Reception mentioned on page 5.

5 RECORDING FROM A RECORD PLAYER

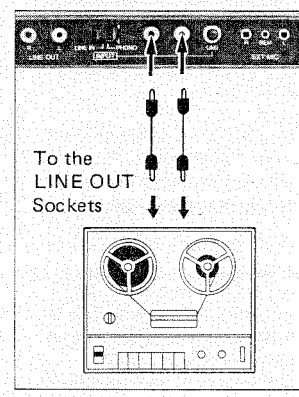
1. Perform steps 1 to 6 of Record Player Audio Reproduction mentioned above.
2. Perform steps 2 thru 6 and 10 of Recording from the Unit's Radio, mentioned on pages 8 and 9.
3. Record output of the Record Player.

6 CONNECTION TO AN EXTERNAL RECORDER

It is possible to perform dubbing operations using an external Tape Recorder. If the Tape to be dubbed is a Cassette type then follow procedures mentioned on page 13. The following procedure is for the open reel type or other recording equipment.

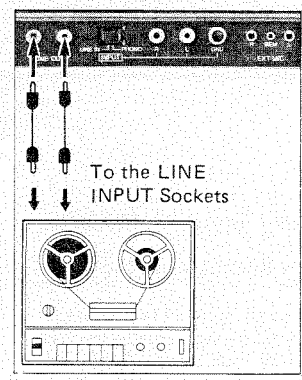


Note:
Slide the MIXING Switch to the MIX MIC OFF position.



■ DUBBING FROM AN EXTERNAL RECORDER

1. Connect the external Tape Recorder to the INPUT Sockets of the GF-777H Unit.
2. Slide the INPUT selector switch on the back panel to the LINE IN position.
3. Load the recorded source tape onto the external Recorder.
4. Load the Cassette Compartment of Deck 2 on the GF-777H Unit with a suitable Cassette Tape on Deck 2 to a point for starting the dubbing recording.
5. Prepare Deck 2 of the GF-777H Unit for recording, refer to pages 8 and 9 and also prepare the External Recorder for playing of recorded tape.

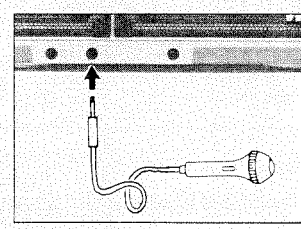


■ DUBBING ONTO AN EXTERNAL RECORDER

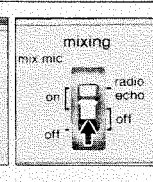
1. Connect the External Tape Recorder to the LINE OUT Sockets of the GF-777H Unit with RCA type cables.
2. Load a Cassette Tape into the Cassette Compartment of either Deck 1 or Deck 2 of the GF-777H Unit. Find the position on the Cassette Tape from where the dubbing should start.
3. Prepare the External Tape Recorder for recording.
4. Prepare Deck 1 or Deck 2 for playback. Refer to pages 9 and 10.

7 MICROPHONE AMPLIFICATION

The Unit will amplify the input from an external microphone, (which is useful for public address activities.) The microphone (not supplied) should be fitted with a 6.3mm diameter plug.



1. Connect the microphone plug to the MIX MIC Socket.



2. Slide the MIC FADER Control to the MIC position.
3. Slide the MIXING Switch to the MIX MIC ON position.
4. Adjust the VOLUME, BALANCE, BASS, and TREBLE Controls and LOUDNESS Switch as mentioned for FM Reception on pages 5 and 6.

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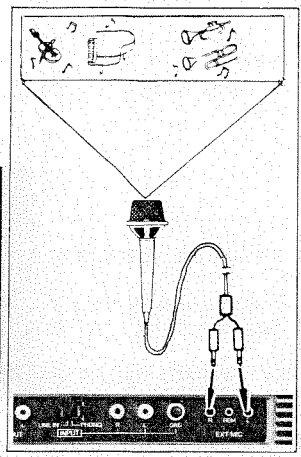
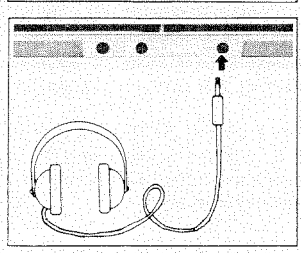
8 RECORDING FROM EXTERNAL MICROPHONES

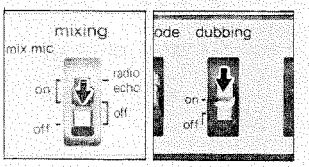
Note:
Check whether Deck 1 is in the stop mode.



1. Stereo Recording
   a) Prepare two microphones, (400 ohm to 3 k ohms impedance each, with 3.5mm dia. plugs), or use SHARP's stereo microphone MC-57CL/MC-55CL.
   b) Plug the microphones into the EXT MIC R and L sockets.
   If a microphone is fitted with a remote stop/start switch, the plug is inserted into the REM control socket between the microphone sockets.
   c) Arrange the microphones as shown in the illustration.
2. Mono Recording
   The signal is recorded on either the left or right channel tape track. Plug the mono microphone into EXT MIC left or right socket on the rear panel.



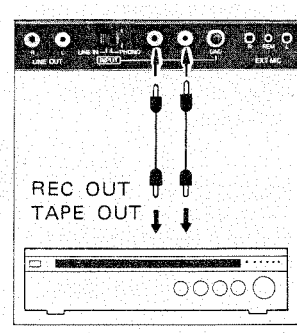
3. Use stereo headphones in order to monitor the recording.
   Monitoring is also possible with the internal speakers, but this may result in feedback whistle (howling); therefore the use of headphones is advisable.
   Connect headphones to the PHONES Socket on the front panel.
   The monitoring level can be adjusted by using the VOLUME Control, without affecting the recording.
4. Slide the FUNCTION Switch to the TAPE position.



5. Slide MIXING Switch to MIX MIC OFF position.
6. Slide the DUBBING Switch to OFF position.
7. Make the recording by referring steps 2 thru 8 and 10 of the explanation for Recording from the Unit's Radio on pages 8 and 9.

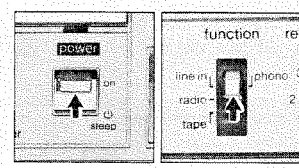
9 RECORDING FROM AN AMPLIFIER

Note:
Slide the MIXING Switch to the MIX MIC OFF position.



1. Turn off both GF-777H Unit and the Amplifier.
2. Amplifier output sockets, (REC OUT, TAPE OUT, etc.) should be connected to the INPUT right channel (R) and left channel (L) Sockets of the GF-777H Unit (with cables that have plugs suitable for connecting into each set of sockets.) Even if the input terminals, (TAPE PLAYBACK or TAPE INPUT, etc.) are connected or are already connected to the LINE OUT Sockets of the GF-777H Unit recording can be affected.

3. Slide the INPUT Switch on the back panel to the LINE IN position.



4. Turn on the POWER Switches of both Units.
5. Slide the FUNCTION Switch to the PHONO/LINE IN position.
6. Start the recording process. Refer to steps 2 to 8 and 10 of Recording from the Unit's Radio on pages 8 and 9.
7. Adjust VOLUME, BALANCE, BASS and TREBLE Controls and LOUDNESS Switch in order to balance audio characteristics with specific environmental acoustic conditions. Refer to steps 10 through 15 of FM Reception on pages 5 and 6.

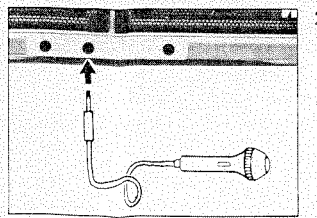
10 MIXED RECORDING AND PLAYING

The GF-777H Unit can mix the output of a mixing microphone with the playback (Deck 1 or Deck 2), input from the Unit's internal microphones, the Unit's radio, a Tape Recorder, a Record Player, or other external audio equipment which is connected to the INPUT Socket. The reproduced mixed audio output is monophonic.

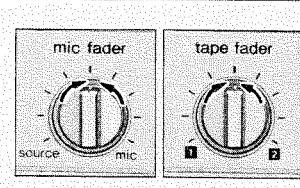
1. Follow the instructions provided in the chart for mixed playing or mixed recording with the mixing microphone and source.

* Possible: (with connection of extra tape recorder to the LINE OUT sockets.)

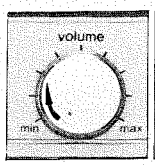
SOURCE UNIT FOR MIXING	MIXED PLAYING	MIXED RECORDING			
		FUNCTION	MONITORING		
			Unit's Speaker	Headphones	External Speaker
Built-in Deck 1	Possible	Possible	Possible	Possible	Possible
Built-in Deck 2		*			
Unit's Radio		Possible	Possible	Possible	Possible
Unit's Microphones	Impossible		Impossible	Impossible	Impossible
External Record Player	Possible		Possible	Possible	Possible
External Audio Systems Connected to the INPUT Sockets	Possible		Possible	Possible	Possible
External Microphones	Impossible		Possible	Possible	Possible

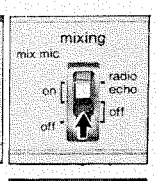


2. Connect the mixing microphone, (with a 6.3mm plug), to the MIX MIC Socket.
   The mixing microphones requires 400 ohm to 3k ohm impedance.

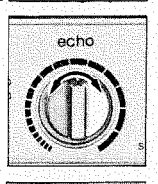


3. Adjust the MIC FADER Control to the central position between the SOURCE and MIC positions.
4. Turn the TAPE FADER Control to the central position between 1 and 2 positions.

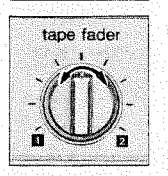




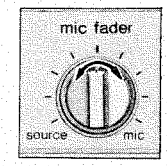
5. Increase the volume level slightly from "0" position.
6. Slide the MIXING Switch to the MIX MIC ON position.



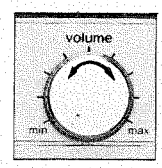
7. When you want voice and sound in the mixing microphone to have an echo effect, turn the ECHO Control clockwise. The more the control moves clockwise, the more the echo increases.



8. Follow steps for Playback, on pages 9 and 10, or Recording, pages 8 and 9.
9. In cases where mixed playing of Tapes 1 and 2 is desired, volume balance for both tapes may be adjusted by means of the TAPE FADER Control.



10. Volume balance for mixing microphone and source (radio broadcast, record reproduction or sound from other external Units) may be adjusted with the MIC FADER control.



11. Adjust the volume level with the VOLUME Control.
12. Also mixing of sound of Deck 1 with the mixing microphone is possible while dubbing from Deck 1 to Deck 2. Refer to the Multi-recordings mentioned on page 14.

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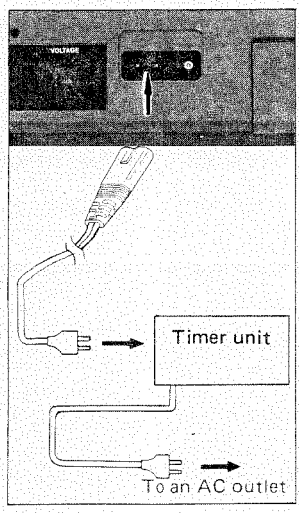
11 AUTOMATIC RECORDING/PLAYBACK STARTING (TIMER START)

It is possible to start the Unit in order to record or playback with a Timer Unit (Automatic-On System).



1. Connect the AC supply cord plug of the Unit, into the AUTOMATIC ON Sockets of the Timer Unit. Adjust the Timer to the EVER-ON condition.
2. Connect the AC supply cord on the Timer Unit to the AC wall outlet.
3. Perform steps of Recording mentioned on pages 8 and 9. Or, perform steps of playing (Individual playback, Simultaneous playback or Sequential playback) mentioned on pages 9 and 10.
4. After that, depress the STOP Key to get the GF-777H Unit in STOP mode.
5. Slide the POWER Switch to the ⏻ / SLEEP position.
6. Adjust the Timer Unit to a desired time for starting the Unit's playback or recording. Adjust the Timer Unit to the AUTOMATIC ON condition.
7. Again depress the PLAY Key or RECORD Key to get the GF-777H Unit in the same state as mentioned in step 3.
8. The GF-777H Unit will turn on when the preset time arrives and playback or recording on Deck 2 will begin.

Notes:

- When the end of the tape is reached, the tape automatically stops and the recorder returns to the neutral mode.
  Yet, the radio continues to operate without turning off.
- Refer to Timer Manufacturer's instructions before using the Timer. There are various types of Timers available and each may have slightly different operating methods.

SPECIFICATIONS

GENERAL

Power source:		AC 110/220/240V, 50/60Hz DC 15V (UM/SUM-1, R-20, HP-2, or "D" battery x 10, or external DC supply)
Speakers:	Super Woofer;	16cm (6 1/2") x 2
	Woofer;	16cm (6 1/2") x 2
	Tweeter;	Horn type x 2
Output power :		MPO 28W, AC supply operation, with four amplifiers RMS 24W, DC supply operation, with four amplifiers (DIN 45 324)
Semiconductors:		17-IC's 52-Transistors 1-FET 1-SCR 61-Diodes 11-LED's
Dimensions:	Width;	752mm
	Depth;	166mm
	Height;	379mm
Weight (without batteries):		11.8kg

TAPE RECORDER/PLAYER

Tape:	Philips-type compact cassette tape
Frequency response:	30Hz to 18000Hz (Metal tape) 30Hz to 17000Hz (CrO_2 tape) 30Hz to 14000Hz (normal tape)
S/N ratio:	56dB (SNRS: ON, METAL TAPE)
Wow and flutter (DIN 45511):	0.14%
Input sensitivity and input impedance:	
Ext. Mic;	600 ohms
Mixing mic;	600 ohms
Line in;	0.14V/22k ohms
Output level and loaded impedance:	
Headphones;	8 ohms to 25 ohms
External speaker;	4 ohms to 8 ohms
Line out;	0.6V/47k ohms

RADIO

Frequency range:	LW; 150 – 285kHz MW; 520 –1620kHz SW; 5.95 – 18MHz FM; 87.6 – 108MHz

Note:
Sharp Corporation reserves the right to change the specifications, materials of production, and the design of the Unit. However any such alternations will not impair the quality of construction and grade of performance of the Unit.